This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of the claims:

Claim 1: (canceled)

Claim 2: (currently amended) A method of diagnosing hereditary non-polyposis colorectal cancer in a patient comprising:

(a) obtaining a DNA or RNA sample from a patient; and

(b) screening the DNA or RNA sample with ~~the~~ an oligonucleotide probe ~~of claim 9~~ to detect a hMLH1 mutant 1, a hMSH2 mutant 1, a hMSH2 mutant 2, or a hMSH2 mutant 3, wherein binding of the oligonucleotide probe to the DNA or RNA sample is indicative of the presence of the hMLH1 mutant 1, the hMSH2 mutant 1, the hMSH2 mutant 2, or the hMSH2 mutant 3 and hereditary non-polyposis colorectal cancer.

Claim 3: (currently amended) A method for predicting susceptibility of a patient to developing hereditary non-polyposis colorectal cancer comprising:

(a) obtaining a DNA or RNA sample from a patient; and

(b) screening the DNA or RNA sample with ~~the~~ an oligonucleotide probe ~~of claim 9~~ to detect a hMLH1 mutant 1, a hMSH2 mutant 1, a hMSH2 mutant 2, or a hMSH2 mutant 3,

wherein binding of the oligonucleotide probe to the DNA or RNA sample is indicative of the presence of the hMLH1 mutant 1, the hMSH2 mutant 1, the hMSH2 mutant 2, or the hMSH2 mutant 3 and hereditary non-polyposis colorectal cancer.

Claims 4-8: (canceled)

Claim 9: (currently amended) An oligonucleotide probe ~~capable of binding~~ which binds to a DNA or RNA sample ~~and indicating~~, wherein binding of the oligonucleotide probe to the DNA or RNA sample occurs only in the presence of a hMLH1 mutant 1, hMSH2 mutant 1, hMSH2 mutant 2, or hMSH2 mutant 3 in the DNA or RNA sample.